

REMARKS

Claims 1 and 20 have been amended to clarify the invention. Claim 3 has been cancelled. Claims 1, 2 and 16-26 are thus pending in the application.

In the Office Action, the Examiner objected to the title of the invention as not being descriptive.

Claims 1-3 and 16-26 were rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent 6,614,477 to Lee et al. and further in view of Applicant's so-called Admitted Prior Art.

The Examiner acknowledged the foreign priority of Japanese application 10-328494 filed on 11/18/98, however, the Examiner indicated that a filed certified copy is required under 35 U.S.C. §119(b).

In view of the arguments that follow, Applicant respectfully traverses the Examiner's rejection of claims 1, 2 and 16-26.

Certified Copy of Priority Application

The Examiner acknowledged the foreign priority of Japanese Application 10-328494, however, the Examiner indicated that a filed certified copy of the Japanese Application filed on 11/18/98 is required under 35 U.S.C. §119(b).

Applicant respectfully submits that a certified copy of Japanese Application 10-328494 was filed at the USPTO on November 16, 1999. To further satisfy the

requirements under 35 U.S.C. §119(b), a copy of such filing on November 16, 1999 is submitted with this Amendment.

Rejection Under 35 U.S.C. §103(a)

The Examiner rejected claims 1-3 and 16-26 under 35 U.S.C. §103(a) as being unpatentable over Lee et al. and further in view of Applicant's so-called Admitted Prior Art. The rejection to claims 1, 2 and 16 – 26 is respectfully traversed.

With respect to independent claim 1, the Examiner alleged that Lee et al. disclose the recitations of the claimed invention. Specifically, the Examiner alleged that Lee et al. disclose a changing device which changes the imaging cycle of the imaging device, thereby changing the maximum exposure period for the imaging device, by referencing element 55 (variable frame rate image capture controller); and col. 4, line 53 - col. 5, line 3. The Examiner admitted that Lee et al. fail to disclose a controller which controls the display to display the sequence of images according to the image signals while the imaging device is capturing subsequent images, such that the display shows a live image of the captured sequence of images to enable determination of an image capturing angle of view.

To cure the deficiencies of Lee et al., the Examiner alleged that Applicant's so-called Admitted Prior Art teaches a display (LCD), and an electronic camera that is capable of displaying a live image on the LCD so that the LCD can be used as a viewfinder to determine the image-capturing angle of view, by referencing page 1, lines 9-14 of Applicant's specification. According to the Examiner, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the practice of changing the imaging cycle taught by Lee et al. with the practice of displaying a live view taught by the admitted prior art to make an apparatus wherein the imaging device

continually outputs an image signal to the display in the cycle wherein the cycle may be changed in order to detect how the image quality of a desired scene changes according to the varying exposure times and imaging cycles.

Applicant respectfully submits that neither Lee et al. nor the so-called Admitted Prior Art, taken singly or in combination (assuming these teachings may be combined, which Applicant does not admit), disclose or teach the claimed recitations of “a changing device which automatically changes the imaging cycle of the imaging device according to the brightness of the object, thereby changing the maximum exposure period for said imaging device;” and “an image memory for temporarily storing the image signals sequentially outputted from the imaging device, said image signals in the image memory are read out with a predetermined interval and outputted to the display,” as recited in amended claim 1.

Lee et al. disclose an apparatus that captures images of an object from a charge-coupled device (CCD) at a commanded frame rate with video signals of 1/60th second fields defined under the NTSC. A frame, in the commanded frame rate, represents a time interleaving of two fields produced every 1/30 sec for the NTSC system at a selected rate of 7.5, 10, 12, 15 or 20 frames per second (see col. 1, lines 18-50 and col. 3, lines 24-47). An array of image capture elements in Lee et al. receives an optical signal such as light radiating from the object. Then an amount of charge corresponding to the received optical signal is stored in the image capture apparatus. Lee et al. also discloses that in conventional systems, a buffer is typically used to store fields of video data read from an image capture device so that they may be processed at variable frame rates. However, the image capture apparatus of Lee et al. captures image data at varying frame rates without requiring buffering.

Lee et al. further discloses a variable frame rate image capture controller that selectively applies shutter discharge pulses to the image capture apparatus based on the commanded frame rate and a shutter control signal generated by a shutter controller. The shutter controller may determine a shutter interval in accordance with exposure parameters such as the luminance of an object being imaged. The variable frame rate image capture controller generates gate signals for each field defined by a vertical drive signal that exhibits a pulse each $1/60^{\text{th}}$ of a second for an NTSC compatible operation. The generated gate signals are applied to the image capture device for selected fields based on the frame rate commanded by the frame rate selection signal to transfer charge stored in a charge storage unit to a vertical transfer unit.

The image signals in the present invention are temporarily stored in the image memory and the imaging cycle of the image signals are read out from the image memory and outputted to the display so that a live image is displayed on an LCD. The charge stored in the image capture apparatus of Lee et al. is not analogous to the temporarily stored image signals that are outputted to a display of the present invention. The charge stored in Lee et al. merely corresponds to a received optical signal such as light radiating from an object. Moreover, the buffer, as referenced in conventional systems by Lee et al., stores fields of video data read to simply process the video data at **variable frame rates**, but does not output the data to a display at a **constant frame rate**.

The image capture apparatus of Lee et al. generates a read signal for a succession of $1/60$ second fields under NTSC. The read image signals are applied to the CCD according to a variable frame rate that selectively applies gate signals and shutter discharge pulses to the image capture apparatus based on commanded frame rates of 7.5,

10, 12, 15 or 20 frames per second for NTSC, and shutter control signal generated by the shutter controller. Although read image data of Lee et al. is applied to the CCD at different commanded frame rates, the image data is also outputted from the image capture apparatus at **different commanded frame rates**. The imaging cycle of the image signals from the image device of the present invention is automatically changed according to the brightness of the object. However, the image signals of the present invention, which are stored in the image memory, are read out with a **predetermined interval** and outputted to the display. Accordingly, the image data outputted from the image capture apparatus at different commanded frame rates of Lee et al. is not analogous to image signals stored in the image memory that are read out with a predetermined interval and outputted to the display.

The so-called Admitted Prior Art does not make up for the deficiencies of Lee et al. The Related Art disclosed in the present invention merely discloses an image device with a maximum exposure time that is fixed at a video rate of 1/60 seconds for an NTSC signal when live images are displayed on an LCD, which results in a live image displayed on the image device too dark. There is nothing described in the Related Art that discloses "a changing device which automatically changes the imaging cycle of the image device according to the brightness of the object; thereby changing the maximum exposure period for said imaging device."

In view of the reasons given above, Applicant respectfully submits that the alleged combination of Lee et al. and Applicant's so-called admitted Prior Art do not disclose the recitations of claim 1 and the rejection should be withdrawn. The rejection of dependent

claims 2 and 16-19 should be withdrawn for at least the same reasons give with regard to respective base claim 1.

Applicant also respectfully submits that the rejection to independent claim 20, which recites "changing the imaging cycle of the imaging device automatically according to the brightness of the object, thereby changing the maximum exposure period for said imaging device;" and "temporarily storing the sequentially outputted image signals, said stored image signals are read out with a predetermined interval and outputted to a display," should be withdrawn for the same reasons given above with regard to independent claim 1. Accordingly, dependent claims 21-26 should be withdrawn for at least the same reasons given with regard to respective base claim 20.

Applicant respectfully submits that the Examiner has failed to establish a *prima facie* case of obviousness. To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art to modify the reference or to combine the reference teachings. Second, the proposed modification of the prior art must have had a reasonable expectation of succeeding, as determined from the vantage point of such a skilled artisan at the time the invention was made. Third, the prior art references, when combined, must teach or suggest all the claim limitations. See M.P.E. P. §2143.

Although the image data of Lee et al. is both applied to the CCD and outputted from the image capture apparatus at different commanded frame rates, the invention is not concerned with determining an image-capturing angle of view for a dark object on a liquid crystal display of an electronic camera. The mere fact that references can be combined or

modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination. Therefore, there is no apparent suggestion in the art relied on by the Examiner to combine the teachings of Lee et al. with the so-called Admitted Prior Art in the manner asserted.

In view of the above reasons, Applicant respectfully submits that the asserted combination of Lee et al. and the so-called Admitted Prior Art fails to establish a *prima facie* case of obviousness of independent claims 1 and 20, or any claim depending therefrom.

Conclusion

All objections and rejections raised in the Office Action having been addressed, it is respectfully submitted that the present application is in condition for allowance and such allowance is respectfully solicited. Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact Demetra R. Smith-Stewart (Reg. No. 47,354) at the telephone number of the undersigned below, to conduct an interview in an effort to expedite prosecution in connection with the present application.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17; particularly, extension of time fees.

Respectfully submitted,

BIRCH, STEWART, KOLASCH & BIRCH, LLP

By 

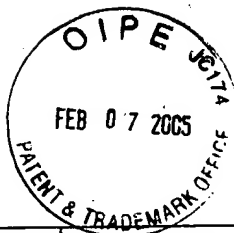
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Enclosures: Copy of certified copy of priority application filed on 11/16/99.

FILING RECEIPT



UNITED STATES DEPARTMENT OF COMMERCE
Patent and Trademark Office
ASSISTANT SECRETARY AND COMMISSIONER
OF PATENTS AND TRADEMARKS
Washington, D.C. 20231

APPLICATION NUMBER	FILING DATE	GRP ART UNIT	FIL FEE REC'D	ATTORNEY DOCKET NO.	DRWGS	TOT CL	IND CL
09/440,624	11/16/99	2851	\$760.00	0879-0244P	5	15	3

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COPY

Receipt is acknowledged of this nonprovisional Patent Application. It will be considered in its order and you will be notified as to the results of the examination. Be sure to provide the U.S. APPLICATION NUMBER, FILING DATE, NAME OF APPLICANT, and TITLE OF INVENTION when inquiring about this application. Fees transmitted by check or draft are subject to collection. Please verify the accuracy of the data presented on this receipt. If an error is noted on this Filing Receipt, please write to the Office of Initial Patent Examination's Customer Service Center. Please provide a copy of this Filing Receipt with the changes noted thereon. If you received a "Notice to File Missing Parts of Application" ("Missing Parts Notice") in this application, please submit any corrections to this Filing Receipt with your reply to the "Missing Parts Notice." When the PTO processes the reply to the "Missing Parts Notice," the PTO will generate another Filing Receipt incorporating the requested corrections (if appropriate).

Applicant(s) YUTAKA MAEDA, ASAKA-SHI, JAPAN.

FOREIGN APPLICATIONS- JAPAN

10-328494

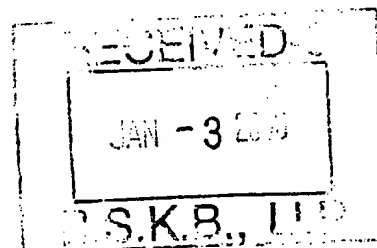
11/18/98

IF REQUIRED, FOREIGN FILING LICENSE GRANTED 12/21/99

TITLE

ELECTRONIC CAMERA

PRELIMINARY CLASS: 396



DATA ENTRY BY: WARREN, EFREM

TEAM: 01 DATE: 12/21/99



(See reverse for new important information)



IN THE U.S. PATENT AND TRADEMARK OFFICE

Applicant(s): MAEDA, Yutaka

Application No.:

Group:

Filed: November 16, 1999

Examiner:

For: ELECTRONIC CAMERA

COPY

L E T T E R

Assistant Commissioner for Patents
Box Patent Application
Washington, D.C. 20231

November 16, 1999
0879-0244P

Sir:

Under the provisions of 35 USC 119 and 37 CFR 1.55(a), the applicant hereby claims the right of priority based on the following application(s):

<u>Country</u>	<u>Application No.</u>	<u>Filed</u>
JAPAN	10-328494	11/18/98

A certified copy of the above-noted application(s) is(are) attached hereto.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. 1.16 or under 37 C.F.R. 1.17; particularly, extension of time fees.

Respectfully submitted,

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いる事項と同一であることを証明する。

This is to certify that the annexed is a true copy of the following application as filed
with this Office.

出願年月日
Date of Application:

1998年11月18日

出願番号
Application Number:

平成10年特許願第328494号

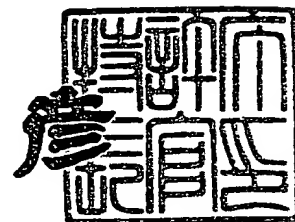
出願人
Applicant(s):

富士写真フイルム株式会社

1999年10月 8日

特許庁長官
Commissioner,
Patent Office

近藤 隆彦



出証番号 出証特平11-3068884